

patent. In fact, Lau criticizes prior art polymers in which crosslinking was effected via pendant functional groups (col. 2, lines 22-41):

Surprisingly, despite great efforts to improve various properties in nanoporous materials, and considerable work in improving crosslinking in nanoporous materials, there is no general method for crosslinking (a) without relying on exogenous crosslinking molecules, and (b) without adding pendent [sic] functionalities to the monomers. Therefore, there is still a need for methods and compositions that circumvent these limitations.

The present invention provides methods and compositions in which nanoporous materials are fabricated from fluorinated and nonfluorinated polymers having backbones with flexible structural moieties and with reactive groups used in crosslinking.

In contrast to the polymers that Lau describes, claims 1-20 specifically require the crosslinkable group to be present in the form of a pendant group. This is evident not only from the claims, but from the title of the application, which recites "Process for Preparing Poly(arylene ethers) with Pendant Crosslinkable Groups." Claims 1-20, therefore, cover polymers having structures criticized by Lau.

Applicants further note that the Examiner appears to be confusing "thermolabile" portions of the molecules described in Lau with crosslinkable groups. Lau defines "thermolabile" groups as groups that produce structures that decompose at elevated temperatures (see col. 5, lines 19-21). Thermolabile groups, therefore, are the opposite of crosslinkable groups. The latter are designed to produce crosslinked structures that resist decomposition at elevated temperatures.

Applicants further note that in Lau's process, two molecules, A and B, are reacted to yield a polymer (AB), which is then reacted with an endcapped, difluoro thermolabile polymer to yield a product having the structure $((AB)_n-C)_m$. Because AB and C are polymers, the resulting product is a block copolymer. The process described in claims 1-20 of the present application, however, does not yield block copolymers, nor are such block copolymers desired. As stated in Applicants' specification, "The process provides polymers of structure (I) that are highly regular and free of blockiness" (page 3, line 5).

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Lau, therefore, teaches away from the polymers, and process for making them, that are the subject of Applicants' claims. Therefore, the claims would not have been obvious in view of Lau, and the rejection should be withdrawn.

Please apply any charges or credits to deposit account 06-1050.

Respectfully submitted,

Date: _____

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